

Notice of Allowability

Application No.

09/688,733

Examiner

Thoi V Duong

Applicant(s)

SAITO, YOSHIMASA

Art Unit

2871

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Appeal Brief filed 02/27/2004.
2. ☒ The allowed claim(s) ~~is~~ are 3,6,7,9,10,12 and 13.
3. ☒ The drawings filed on 16 October 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This office action is in response to the Appeal Brief filed February 27, 2004.

Accordingly, claims 3, 6, 7, 9, 10, 12 and 13 were amended, and claims 1, 2, 4, 5, 8, 11 and 14 were cancelled. Currently, claims 3, 6, 7, 9, 10, 12 and 13 are pending in this application.

Allowable Subject Matter

2. Claims 3, 6, 7, 9, 10, 12 and 13 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

None of the prior art of record discloses, in combination with other limitations as claimed, a liquid crystal display (as well as a method of manufacturing the same) comprising each of a plurality of pixel regions (or dot regions) having a first alignment direction for a front alignment film portion of said pixel (or dot) and a second alignment direction for a back alignment film portion of said pixel (or dot) with no other alignment directions for said pixel (or dot),

wherein, *re claims 3, 6, 9 and 12*, four closely arranged pixel regions (or dot regions) each have two different alignment directions for the respective front and back alignment films and none of the four dot regions share two common alignment directions; or

wherein, *re claims 7 and 13*, adjacent pixels do not share two common alignment directions; or

wherein, *re claim 10*, said liquid crystal alignment directions are in opposite directions for each of the alignment films at respective regions of the alignment films corresponding to adjacent dots.

The most relevant references, USPN 6,097,463 of Chen and USPN 5,657,105 of McCartney, fail to disclose or suggest that adjacent pixels (or dots) do not share two common alignment directions. The Chen's reference is merely directed to a liquid crystal display device in which an in-pixel divided alignment structure is achieved as shown in Fig. 8A, wherein each of pixels 141 was divided into two regions so that adjacent divided regions had opposite rubbing directions (arrow G and H). Meanwhile, as shown in Fig. 1, McCartney discloses a multi-domain liquid crystal display comprising a plurality of dots R, G, B, each dot has two alignment directions; however, adjacent dots between rows 10, 20 and 30 share two common alignment directions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

Application/Control Number: 09/688,733

Page 4

Art Unit: 2871

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong



05/07/2004



ROBERT H. KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800